

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

I. Disposition of Claims

Claims 1-6, 8, 9, 11, and 13 were pending in this application. Claims 1, 4, 5, and 13 are independent. The remaining claims depend, directly or indirectly, from claims 1, 4, or 5. Claims 1, 4, 5, and 13 have been amended in this reply. No new matter has been added by way of these amendments.

II. Claim Amendments

The amendments to claims 1, 4, 5, and 13 are fully supported by the specification. Claims 1, 4, 5, and 13 have been amended to recite “a thrusting member provided on a rear surface of said sheet tray body” and “wherein the thrusting member abuts a back cover of said sheet feeder, when said sheet tray body is used.” Support for these amendments can be found, for example, on page 15 of the instant specification. The specification states, “when the sheet tray is drawn out therefrom, the abutting rib 13 provided on the rear surface of the sheet tray 10 is caused to abut against an upper portion of the inner surface of the back cover 3. Thus, the sheet tray 10 is front-forwardly pushed out.”

III. Rejection(s) under 35 U.S.C § 112

Claim 13 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite, because of the term “-like” in the claim language. Claim 13 has been amended to remove the term “-like.” Accordingly, withdrawal of this rejection is respectfully requested.

IV. Rejection(s) under 35 U.S.C § 103

Claims 1-6, 8, 9, 11, and 13 were rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,975,520 (“Shim”) in view of U.S Patent No. 6,070,868 (“Nagato”). Claims 1, 4, 5, and 13 have been amended in this reply to clarify the present invention recited. To the extent that this rejection may still apply to the amended claims, the rejection is respectfully traversed.

The Present Invention

In reference to Figures 1 and 5, the present invention relates to a sheet tray body (10), which is able to move from a closed position (as shown in Figure 5) to an open position (as shown in Figure 1) by rotating around a shaft (12). In the closed position the sheet tray body (10) is accommodated within a sheet feeder body (6).

In the open position (or when being used), the sheet tray body (10) is moved such that the sheet tray body is connected to sheet mounting portion (4), as shown in Figure 4. In Figure 4, a stepped portion (10a) is provided in the sheet tray body (10), so that a connection portion, between the sheet tray body (10) and an upper edge (4a) of the sheet mounting portion (4) are “flush” with respect to one another. In other words, the sheet tray (10) and the sheet mounting portion are in connection in this step-like manner, so

that the surface of the sheet mounting portion (4) and the surface of the sheet tray body (10) are level with each other.

Further, there are thrusting members (or ribs (13)) located on a rear surface of the sheet tray body that lock the sheet tray body (10) into position. The sheet tray body is moved into position by the thrusting members abutting against a back cover of the sheet feed and pushing the sheet tray body “front-forwardly,” *i.e.*, toward the sheet mounting surface.

Shim

Shim relates to an expandable tray for supporting sheets that are to be fed into a printer. The expandable tray (100) includes a first tray (10) a second tray (20) and a third tray (30). In particular, Figures 1 and 2 show the expandable tray in closed and open positions, respectively. In the open position, tray (20) is rotated about shaft (12) and guided by slot (21) in the direction A (as shown by Figure 2). Further, tray (30) may be pulled out in the direction B. Figure 3 shows a sectional (or side view) of the trays in the open position. (See col. 3, l. 54-col. 4, l. 12.)

The Examiner has used Figure 3 to purportedly show the features of claims 1, 4, 5, and 13. However, these claims require “a stepped portion *provided in* said sheet tray body in such a fashion as to be placed in a connection portion.” That is, the claims require, for example, that a cut out or other indentation forms a step in the sheet tray body. In Shim, the “stepped portion” is formed by cascading two trays on top of one another. On the other hand, the “stepped portion” of the present invention is formed *in* the sheet tray body, *i.e.*, a step formed in a single sheet tray body.

When comparing the “stepped-portion” of the sheet tray as shown in Figure 4 of

the instant specification with the “stepped-portion” purportedly shown in Figure 3 of Shim, it is clear that the stepped portion in Shim is not provided *in* the sheet tray body. In fact, Shim is completely silent with respect to a stepped portion which is provided *in* the sheet tray. Thus, Shim does not show or teach a stepped portion as recited in claims 1, 4, 5, and 13.

Also, the Examiner admits that Shim lacks the thrusting member required by claims 1, 4, 5, and 13, but cites Nagato as showing a thrusting member. However, as will be discussed in detail below, Nagato fails to teach a thrusting member as recited by claims 1, 4, 5, and 13. Furthermore, Nagato also fails to overcome the deficiencies of Shim discussed above.

Nagato

Nagato teaches the use of an auxiliary tray for printing that folds in and out when moving to open and closed positions. Figure 3 shows the auxiliary sheet tray as taught by Nagato in the open position, and Figure 4 shows the auxiliary sheet tray in the closed position. Figures 6a and 6b show the rib (29) for “locking” the auxiliary tray (25) into the open position. In particular, rib (29) engages with the protrusions (21e) on the edge of the main tray (21). (See col. 4, ll. 48-57.)

Nagato is completely silent with respect to a “stepped portion provided in said sheet tray body in such a fashion as to be placed in a connection portion” as required by claims 1, 4, 5, and 13. Accordingly, Nagato fails at least to provide that which Shim lacks with respect to the invention as recited in these claims. Thus, the claims are patentable over Nagato and Shim, whether considered separately or in combination.

Moreover, Nagato further fails to show or suggest a thrusting member as required

by claims 1, 4, 5, and 13. In contrast to the present invention, the rib (29) as identified by Examiner is located on the front surface of the auxiliary tray (25). The claimed invention as amended requires that the thrusting member is provided “on a rear surface of the sheet tray body.” Nagato teaches two types of ribs. Particularly, rib (27), which formed on a back side of the auxiliary tray and identified rib (29) formed on the front side of the auxiliary tray. (See Figures 4, 6(a) and (b), 7 (a) and (b), and 8.)

The specification of Nagato states, “FIG. 7(b) shows auxiliary tray 25 in an open state. In this embodiment, a rib 27 formed on the *back* surface of auxiliary tray 25 is provided across the entire surface of the auxiliary tray in the length direction” (col. 4, ll. 10-12). Clearly, Nagato identifies the location of the rib (27) on the back surface and the ribs (29) are located on the surface opposite of rib (27). As shown in Figures 6 (a) and (b) and 7(a) and (b), ribs (29) are located on a front surface of the auxiliary tray.

Additionally, the thrusting member of Nagato fails to abut a back cover of the sheet feed, when the sheet tray body is used, as required by claims 1, 4, 5, and 13. In Nagato, the ribs (29) abut protrusions (21e). The specification clearly states, “the plurality of ribs 29 arrayed in a row in the width direction in the edge of the trailing edge side (facing upward when auxiliary tray 25 is in the open state) which abut protrusions 21e provided at corresponding positions on the edge of the trailing side of the back surface of main tray 21” (col. 4, ll. 49-54). Nagato abuts with protrusions (21e), which are not part of the back cover of the sheet feeder, but are a part of the main tray.

In another aspect, the thrusting member of Nagato fails to “push the sheet tray body towards the sheet mounting surface,” as required by claims 1, 4, 5, and 13. The Applicant asserts that the ribs in Nagato are used to control the angle of the feed tray

relative to a *main tray*. However, the present invention as claimed requires more than the mere presence of the ribs, but, moreover, the ribs of the present invention have a particular function. In particular, the present invention requires that the ribs push the sheet tray body forward.

In Nagato, the function of the ribs are used to *inhibit* movement of the auxiliary tray, *i.e.*, prevent the auxiliary tray from folding out. The ribs (29) do not push the auxiliary tray. The ribs (29) simply act as “stoppers.” For example, the specification states, “[t]he rotational angle of the auxiliary tray 25, *i.e.*, the maximum opening angle, is stipulated by the plurality of ribs 29 arrayed in a row in the width direction in the edge of the trailing edge side which abut protrusions (21e) provided at corresponding positions on the edge of the trailing edge side of the back surface of the main tray 21” (col. 4, ll. 48-54). In other words, the angle to which the tray folds out is determined by the ribs (29), which engage with the protrusions (21e) and inhibit the auxiliary tray opening any further. In contrast, the present invention actively pushes the sheet tray body forward, because once the rib (13) abuts against the back cover, a force towards the sheet mounting surface is generated, thereby pushing the sheet tray body toward the sheet mounting surface.

Nagato fails to show or suggest the structural characteristics of the thrusting member, namely, its location on the rear of the sheet tray body, in addition to functional characteristics of the thrusting member, namely, abutting with the back cover and pushing the sheet tray body forward.

As previously discussed, Nagato and Shim fail to disclose all of the elements of claims 1, 4, 5, and 13. Therefore, claims 1, 4, 5, and 13 are patentable over Nagato and

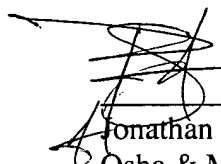
Shim, whether considered separately or in combination. Claims 2, 3, and 6-12, being dependent on claims 1, 4, or 5, are likewise patentable for at least the same reasons.

V. Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 04995/039001).

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Respectfully submitted,


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